

$\rho(1570)$

$$I^G(J^{PC}) = 1^+(1^{--})$$

OMITTED FROM SUMMARY TABLE

May be an OZI-violating decay mode of $\rho(1700)$. See our mini-review under the $\rho(1700)$.

NODE=M188

NODE=M188

 $\rho(1570)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1570±36±62	54	¹ AUBERT	08S BABR	10.6 $e^+e^- \rightarrow \phi\pi^0\gamma$
●●● We do not use the following data for averages, fits, limits, etc. ●●●				
1480±40		² BITYUKOV	87 SPEC	32.5 $\pi^-p \rightarrow \phi\pi^0n$
¹ From the fit with two resonances.				
² Systematic errors not estimated.				

NODE=M188M

NODE=M188M

NODE=M188M;LINKAGE=AU
NODE=M188M;LINKAGE=BI **$\rho(1570)$ WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
144±75±43	54	³ AUBERT	08S BABR	10.6 $e^+e^- \rightarrow \phi\pi^0\gamma$
●●● We do not use the following data for averages, fits, limits, etc. ●●●				
130±60		⁴ BITYUKOV	87 SPEC	32.5 $\pi^-p \rightarrow \phi\pi^0n$
³ From the fit with two resonances.				
⁴ Systematic errors not estimated.				

NODE=M188W

NODE=M188W

NODE=M188W;LINKAGE=AU
NODE=M188W;LINKAGE=BI **$\rho(1570)$ DECAY MODES**

Mode	Fraction (Γ_i/Γ)
Γ_1 e^+e^-	
Γ_2 $\phi\pi$	not seen
Γ_3 $\omega\pi$	

NODE=M188215;NODE=M188

DESIG=1

DESIG=2

DESIG=3

 $\rho(1570)$ $\Gamma(i)\Gamma(e^+e^-)/\Gamma(\text{total})$

VALUE (eV)	CL%	EVTS	DOCUMENT ID	TECN	COMMENT	$\Gamma_2\Gamma_1/\Gamma$
3.5±0.9±0.3		54	⁵ AUBERT	08S BABR	10.6 $e^+e^- \rightarrow \phi\pi^0\gamma$	
●●● We do not use the following data for averages, fits, limits, etc. ●●●						
<70	90		⁶ AULCHENKO	87B ND	$e^+e^- \rightarrow K_S^0 K_L^0 \pi^0$	
⁵ From the fit with two resonances.						
⁶ Using mass and width of BITYUKOV 87.						

NODE=M188225

NODE=M188G01
NODE=M188G01NODE=M188G01;LINKAGE=AU
NODE=M188G01;LINKAGE=AL **$\rho(1570)$ BRANCHING RATIOS**

VALUE	DOCUMENT ID	TECN	COMMENT	Γ_2/Γ
not seen	ABELE	97H CBAR	$\bar{p}p \rightarrow K_L^0 K_S^0 \pi^0 \pi^0$	
●●● We do not use the following data for averages, fits, limits, etc. ●●●				
<0.01	⁷ DONNACHIE	91 RVUE		
⁷ Using data from BISELLO 91B, DOLINSKY 86, and ALBRECHT 87L.				

NODE=M188220

NODE=M188R01
NODE=M188R01

NODE=M188R01;LINKAGE=DO

VALUE	CL%	DOCUMENT ID	TECN	COMMENT	Γ_2/Γ_3
>0.5	95	BITYUKOV	87 SPEC	32.5 $\pi^-p \rightarrow \phi\pi^0n$	

NODE=M188R02
NODE=M188R02 **$\rho(1570)$ REFERENCES**

AUBERT	08S	PR D77 092002	B. Aubert <i>et al.</i>	(BABAR Collab.)	REFID=52242
ABELE	97H	PL B415 280	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)	REFID=45765
BISELLO	91B	NPBPS B21 111	D. Bisello	(DM2 Collab.)	REFID=41752
DONNACHIE	91	ZPHY C51 689	A. Donnachie, A.B. Clegg	(MCHS, LANC)	REFID=41632
ALBRECHT	87L	PL B185 223	H. Albrecht <i>et al.</i>	(ARGUS Collab.)	REFID=40418
AULCHENKO	87B	JETPL 45 145	V.M. Aulchenko <i>et al.</i>	(NOVO)	REFID=41373
		Translated from ZETFP 45 118.			
BITYUKOV	87	PL B188 383	S.I. Bitjukov <i>et al.</i>	(SERP)	REFID=40011
DOLINSKY	86	PL B174 453	S.I. Dolinsky <i>et al.</i>	(NOVO)	REFID=20246

NODE=M188